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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/734,601	12/13/2000	William Possidento		3613

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EXAMINER

FERNSTROM, KURT

ART UNIT PAPER NUMBER

3712

DATE MAILED: 03/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/734,601

Applicant(s)

POSSIDENTO, WILLIAM

Examiner

Kurt Femstrom

Art Unit

3712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Drawings

1. The drawings are objected to because they do not contain reference numbers for each feature of the invention. Corresponding reference numbers should also be provided in the specification. Correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 appears to have been cut off in midsentence as the result of an apparent typographical error. Also in claim 1, "periodic" in line 2 should not be capitalized, and "piece" in line 9 should be "pieces". Also, claims 3 and 4 recite that "each of said cubes" contains information pertaining to "each" of the elements; in other words, each cube has information pertaining to all 106 elements. It appears from the specification that each cube actually contains information pertaining to one of the elements. The claims need to be rewritten to reflect that one element is represented by each cube.

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Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Midgley in view of Gaines. As understood, the claims are directed toward a teaching device comprising a board displaying the periodic chart and cube-shaped pieces representing each of the elements. Midgley discloses in Figures 6 and 7 and in column 3, lines 37-51 a teaching apparatus comprising a board 30 having the periodic chart displayed thereon, including a main section having a 3x18 array and upper sections having a 2x2 and a 2x6 array, and means for accommodating cards 25 having information thereon pertaining to the chemical elements which may be placed on the board. Midgley fails to disclose that the pieces 25 have a cubic shape. Gaines discloses a teaching device comprising a plurality of cubes which represent chemical elements. It would have been obvious to one of ordinary skill in the relevant art to modify the device disclosed by Midgley by providing cube shaped pieces to represent the elements rather than cards for the purpose of providing three dimensional representations of the chemical elements and for the purpose of allowing the user to more easily manipulate the pieces.

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6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Midgley in view of Gaines, and further in view of Hun. Midgley as viewed in combination with Gaines discloses all of the limitations of claim 4 with the exception of the information pertaining to electronic configuration of the elements. It is well known to provide such information in teaching devices. Hun discloses on Figure 1 and on page 2, lines 75-119 a teaching device comprising pieces representing the elements, whereby each piece has information thereon relating to electronic information. It would have been obvious to one of ordinary skill in the relevant art to modify the device disclosed by Midgley as viewed in combination with Gaines by providing information pertaining to electronic configuration of the elements on the pieces for the purpose of providing additional educational information to the device.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ward, Lahav, Ramsay, Dawson, Perrero, Brownlee, Flickinger, Edwards, Ulya and "Periodic Table Puzzle" disclose various educational devices for teaching chemistry.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kurt Fernstrom whose telephone number is (703) 305-0303.

KF

March 22, 2002


Kien T. Nguyen
Primary Examiner